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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,951	12/21/2001	Andrew Mark Player	applied_104	4583

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EXAMINER

TRAN, NGHI V

ART UNIT PAPER NUMBER

2151

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,951

Applicant(s)

PLAYER, ANDREW MARK

Examiner

Nghi V. Tran

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☒ Claim(s) 11, 28 and 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/21/2001.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. Claim 11 is objected to because of the following informalities: "can be" is interpreted as "possibly but not certainly". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-4, 6, 10-14, 16, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. "until it is read" (emphasis added) renders the claim indefinite because "it" refers to the buffer, the first overhead message, or the second overhead message.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-6, 11-16, 21-24, 27, and 29-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Noehring et al., U.S. Patent Application Publication No. 2003/0028804 (hereinafter Noehring).

8. With respect to claims 1, 11, 21, and 29, Noehring teaches a system for securely buffering overhead messages in a network-connected integrated circuit [see abstract and figs.7-9], the system comprising:

- a processor [700 i.e. a gateway] having an input for receiving messages including overhead bytes and an output for supplying overhead bytes [paragraph 0037];
- a message buffer [806 i.e. write buffer] having an input to accept overhead bytes, the buffer collecting overhead bytes to create an overhead message from the collected overhead bytes and supplying the overhead message at an output [fig.8 and paragraphs 0036-0041]; and,
- a semaphore register [704 i.e. semaphore controller] to protect the buffered overhead message from being overwritten until the buffer is read [paragraphs 0045-0049].

With respect to claims 2-4, 12-14, 22, and 32, Noehring further teaches the processor receives message in a frame format and supplies a first number of overhead bytes per frame for a second number of frames [paragraphs 0025-0030]; wherein the semaphore register protects the buffered overhead message in the message buffer by alerting the processor that the overhead message has not yet been read; and, wherein the processor supplies overhead bytes to the buffer in response to the semaphore register [fig.8].

With respect to claims 5, 15, 23, and 31, Noehring further teaches the semaphore register has an input to accept a lock value [i.e. "busy bit"]; and, wherein the

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processor ceases to supply overhead bytes to the buffer in response to the lock value loaded in the semaphore register [paragraph 0049].

With respect to claims 6, 16, 24, and 30, Noehring further teaches the semaphore register input accepts an unlock value [i.e. "busy bit" is reset]; and, wherein the processor supplies overhead bytes to the buffer in response to an unlock value loaded in the semaphore register [paragraph 0049 i.e. busy bit is reset which indicating the write buffer is available to be written to].

With respect to claim 27, Noehring further teaches the processor supplies bytes selected from the group including fault type and fault location (FTFL), general communication channel (GCC), experimental (EXP), and automatic protection switching/protection communication control (APS/PCC) messages for one frame; and wherein the message buffer accepts a bytes from the selected group every frame, creating an overhead message [fig.7 and paragraphs 0031-0039].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 7-9, 17-19, 25-26, and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noehring as applied to claims 1, 11, 21, and 29 above, and further in view of Brissette, U.S. Patent Application Publication No. 2003/0115307.

With respect to claims 7, 17, 25, and 33, Noehring is silent on the processor receives a G.709 format message with 64 overhead bytes per frame.

In a network-connected integrated circuit, Brissette discloses the processor receives a G.709 format message with 64 overhead bytes per frame [paragraphs 0004-0009].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Noehring in view of Brissette by receiving a G.709 format message with 64 overhead bytes per frame because this feature provides for a specific frame structure that has a specific header with section in the header specifically tasked for containing error correction data [Brissette, paragraph 0004]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Noehring in view of Brissette in order to allow for easier implementation, as each hardware solution can be installed at each entry and exit point of network [Brissette, paragraph 0011].

With respect to claims 8, 18, 26, and 34, Noehring is silent on the processor supplies trail trace identifier (TTI) overhead bytes every frame, for 64 frames; and,

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wherein the message buffer accepts a trail trace identifier (TTI) byte every frame, creating an overhead message from storing collected TTI bytes from the 64 frames.

In a network-connected integrated circuit, Brissette discloses the processor supplies trail trace identifier (TTI) overhead bytes every frame, for 64 frames; and, wherein the message buffer accepts a trail trace identifier (TTI) byte every frame, creating an overhead message from storing collected TTI bytes from the 64 frames [paragraphs 0004-0011].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Noehring in view of Brissette by supplying, accepting, and creating TTI overhead bytes every frame, for 64 frames because this feature provies for data encapsulation and for specific sections in that encapsulation for such data integrity checks [Brissette, paragraph 0005]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Noehring in view of Brissette in order to allow for testing whether frames reach their desired output ports in the network [Brissette, paragraph 0005].

With respect to claims 9, 19, and 35, Noehring further teaches the processor supplies bytes selected from the group including fault type and fault location (FTFL), general communication channel (GCC), experimental (EXP), and automatic protection switching/protection communication control (APS/PCC) messages for one frame; and wherein the message buffer accepts a bytes from the selected group every frame, creating an overhead message [fig.7 and paragraphs 0031-0039].

With respect to claim 36, Noehring further teaches the microprocessor reads the overhead message from the buffer and transmits the overhead message in an upstream message [figs.8-9].

Allowable Subject Matter

Claims 10, 20, 28 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V. Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi V Tran
Patent Examiner
Art Unit 2151

NT


ZARNI MAUNG
SUPERVISORY PATENT EXAMINER